The following listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

1. (Original): An ionic liquid of the formula

$$K^+A^-$$
 (I)

wherein:

## K<sup>+</sup> is a cation selected from

where

 $R^1$  to  $R^6$  are identical or different and are each individually - H,

- halogen,
- an alkyl radical (C<sub>1</sub> to C<sub>8</sub>), which is unsubstituted or partially or fully substituted by F, Cl,  $N(C_nF_{(2n+1-x)},H_x)_2$ ,  $O(C_nF_{(2n+1-x)}H_x)$ , or  $(C_nF_{(2n+1-x)},H_x)$ , where 1 < n < 6 and  $0 < x \le 13$ ,
- a phenyl radical which is unsubstituted or partially or fully substituted by F, Cl,  $N(C_nF_{(2n+1+x)}H_x)_2$ ,  $O(C_nF_{(2n+1-1)}H_x)$ ,  $SO_2(C_nF_{(2n+1-x)}H_x)$  or  $C_nF_{(2n+1-x)}H_x$  where 1 < n < 6 and  $0 < x \le 13$ , or
- one or more pairs of adjacent  $R^1$  to  $R^6$  can also be an alkylene or alkenylene radical having up to 8 C atoms and which is unsubstituted or partially or fully unsubstituted by halogen,  $N(C_nF_{(2n+1x)}H_x)_2$ ,  $O(C_nF_{(2n+1-x)}H_x)$ ,  $SO_2(C_nF_{(2n+1-x)}H_x)$  or  $C_nF_{(2n+1-x)}H_x$  where 1 < n < 6 and  $0 \le x \le 13$ ; and
  - A is an anion of the following formula

$$[PF_x(C_yF_{2y+1-z}H_z)_{6-x}]^{-1}$$

where  $1 \le x < 6$ 

 $1 \le y \le 8$  and

 $0 \le z \le 2y+1.$ 

- 2. (Original): A compound according to claim 1, wherein at least one  $R^1$  to  $R^6$  group is a halogen.
- 3. (Original): A compound according to claim 1, wherein at least one  $R^1$  to  $R^6$  group is an alkyl radical ( $C_1$  to  $C_8$ ), which is unsubstituted or partially or fully substituted by F, Cl, N( $C_nF_{(2n+1-x)},H_x$ )<sub>2</sub>, O( $C_nF_{(2n+1-x)}H_x$ ), or ( $C_nF_{(2n+1-x)},H_x$ ), where 1 < n < 6 and  $0 < x \le 13$ .
- 4. (Original): A compound according to claim 1, wherein at least one  $R^1$  to  $R^6$  group is a phenyl radical which is unsubstituted or partially or fully substituted by F, Cl,  $N(C_nF_{(2n+1+x)}H_x)_2$ ,  $O(C_nF_{(2n+1-1)}H_x)$ ,  $SO_2(C_nF_{(2n+1-x)}H_x)$  or  $C_nF_{(2n+1-x)}H_x$  where 1 < n < 6 and

- 5. (Original): A compound according to claim 1, wherein at least one adjacent pair of  $R^1$  to  $R^6$  is an alkylene or alkenylene radical having up to 8 C atoms and which is unsubstituted or partially or fully unsubstituted by halogen,  $N(C_nF_{(2n+1x)}H_x)_2$ ,  $O(C_nF_{(2n+1-x)}H_x)$ ,  $SO_2(C_nF_{(2n+1-x)}H_x)$  or  $C_nF_{(2n+1-x)}H_x$  where 1 < n < 6 and  $0 \le x \le 13$ .
- 6. (Original): A compound according to claim 1, wherein said compound has at least one perfluorinated alkyl group.
- 7. (Original): A compound according to claim 1, wherein said compound contains at least one C<sub>y</sub>F<sub>2y+1-z</sub>H<sub>z</sub> group selected from C<sub>2</sub>F<sub>5</sub> and C<sub>4</sub>F<sub>9</sub>.
- 8. (Original): An electrochemical cell comprising a cathode, an anode, a separator, and an ionic liquid of claim 1.
- 9. (Original): A capacitor comprising of at least a pair of electrodes, a separator, and an ionic liquid of claim 1.
- 10. (Original): An electrolyte composition comprising an ionic liquid of claim 1 and an aprotic solvent.
- 11. (Original): An electrolyte composition comprising an ionic liquid of claim 1 and a conductive salt.
- 12. (Previously Presented): A compound according to claim 1, wherein said compound is:
- 1-ethyl-3-methylimidazolium tris(pentafluoroethyl)trifluorophosphate;
- 1,2-dimethyl-3-propylimidazolium tris(pentafluoroethyl)trifluorophosphate; or 1-ethyl-3-methylimidazolium tris(nonafluorobutyl)trifluorophosphate.

- 13. (Previously Presented): A compound according to claim 12, wherein said compound is 1-ethyl-3-methylimidazolium tris(pentafluoroethyl)trifluorophosphate.
- 14. (Previously Presented): A compound according to claim 1, wherein  $R^1$  to  $R^6$  are each H or a  $C_1$  to  $C_8$  alkyl, which is unsubstituted or partially or fully substituted by F,  $C_1$ ,  $N(C_nF_{(2n+1-x)}, H_x)_2$ ,  $O(C_nF_{(2n+1-x)}, H_x)$ , or  $(C_nF_{(2n+1-x)}, H_x)$ , where 1 < n < 6 and  $0 < x \le 13$ .
- 15. (Previously Presented): A compound according to claim 1, wherein  $R^1$  to  $R^6$  are each H or a  $C_1$  to  $C_8$  alkyl.
- 16. (Previously Presented): An electrolyte composition according to claim 11, wherein said conductive salt is LiPF<sub>6</sub>, LiBF<sub>4</sub>, LiClO<sub>4</sub>, LiAsF<sub>6</sub>, LiCF<sub>3</sub>SO<sub>3</sub>, LiN(CF<sub>3</sub>SO<sub>2</sub>)<sub>2</sub>, LiC(CF<sub>3</sub>SO<sub>2</sub>)<sub>3</sub> or a mixture thereof.
- 17. (Previously Presented): An electrolyte composition according to claim 11, wherein said composition contains 1-99 wt% of said ionic liquid.
- 18. (Previously Presented): An electrolyte composition according to claim 11, wherein said composition further contains an organic isocyanate.
  - 19. (Previously Presented): A compound according to claim 1, wherein  $2 \le y \le 8$ .
- 20. (Previously Presented): A compound according to claim 1, wherein  $1 \le z \le 2y+1$ .
  - 21. (New): A compound according to claim 1, wherein K<sup>+</sup> is

22. (New): A compound according to claim 1, wherein  $K^+$  is

23. (New): A compound according to claim 1, wherein  $K^+$  is

24. (New): A compound according to claim 1, wherein K<sup>+</sup> is

25. (New): A compound according to claim 1, wherein  $K^{\scriptscriptstyle +}$  is

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26. (New): A compound according to claim 1, wherein  $K^+$  is

27. (New): A compound according to claim 1, wherein  $K^+$  is

28. (New): A compound according to claim 1, wherein K<sup>+</sup> is